

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1 - 19. (Cancelled)

20. (New) A nucleic acid enzyme capable of recognizing and cleaving a nucleic acid substrate, said nucleic acid enzyme comprising :

- (i) a first nucleotide sequence 5'- GGGUCCACCUCCUCGCGGUN<sup>1</sup>N<sup>2</sup>N<sup>3</sup>  
N<sup>4</sup>N<sup>5</sup>N<sup>6</sup>N<sup>7</sup>GGGCAUGCS<sup>1</sup>B<sup>1</sup>Y -3' (SEQ ID NO: 65); and
- (ii) a second nucleotide sequence 5'- B<sup>2</sup>KS<sup>2</sup>GCAUGGCUAAGGGACCC -3' (SEQ ID  
NO: 66);

wherein S<sup>1</sup> and S<sup>2</sup> are each independently selected from the group consisting of G and C;  
B<sup>1</sup> and B<sup>2</sup> are each independently selected from the group consisting of G, C, U and T;  
Y is selected from the group consisting of C, U and T;  
K is selected from the group consisting of G, U and T;  
N<sup>1</sup>N<sup>2</sup>N<sup>3</sup> N<sup>4</sup>N<sup>5</sup>N<sup>6</sup>N<sup>7</sup> forms a substrate binding region;  
N<sup>1</sup>, N<sup>2</sup>, N<sup>3</sup>, N<sup>4</sup>, N<sup>5</sup> and N<sup>6</sup> are a nucleotide which may be the same or different;  
N<sup>7</sup> is U;  
N<sup>7</sup> is capable of forming a wobble pair with the substrate;  
N<sup>1</sup>, N<sup>2</sup>, N<sup>3</sup>, N<sup>5</sup> and N<sup>6</sup> are capable of forming conventional Watson-Crick base pairs with the substrate; and

$N^4$  is capable of forming a triplet with the substrate, said triplet comprising a non-conventional Watson-Crick base pair and a conventional Watson-Crick base pair.

21. (New) The nucleic acid enzyme of claim 20, wherein said enzyme comprises a nucleotide sequence selected from the group consisting of:

(i) 5'- GGGUCCACCUCCUCGCGGUN<sup>1</sup>N<sup>2</sup>N<sup>3</sup>N<sup>4</sup>N<sup>5</sup>N<sup>6</sup>N<sup>7</sup>GGGCAUGC GGCUU  
CGCAUGGCUAAGGGACCC - 3' (SEQ ID NO: 61); and

(ii) 5'- GGGUCCACCUCCUCGCGGUN<sup>1</sup>N<sup>2</sup>N<sup>3</sup>N<sup>4</sup>N<sup>5</sup>N<sup>6</sup>N<sup>7</sup>GGGCAUGCCUUCG  
GGCAUGGCUAAGGGACCC - 3' (SEQ ID NO: 62).

22. (New) The nucleic acid enzyme of claim 20, wherein said first nucleotide sequence is 5'- GGGUCCACCUCCUCGCGGUN<sup>1</sup>N<sup>2</sup>N<sup>3</sup>N<sup>4</sup>N<sup>5</sup>N<sup>6</sup>N<sup>7</sup>GGGCAUGC GCC - 3' (SEQ ID NO: 63) and said second nucleotide sequence is 5'- GCGCAUGGCUAAGGGACCC - 3' (SEQ ID NO: 64).

23. (New) The nucleic acid of claim 20, wherein  $N^1N^2N^3N^4N^5N^6N^7$  is selected from the group consisting of:

- (i) CCGACCU;
- (ii) CCCAGCU;
- (iii) GGGAUAU;
- (iv) CCGCCCU;
- (v) CCGGCCU;
- (vi) CCGUCCU;
- (vii) CCGAACU;
- (viii) CCGAGCU;
- (ix) CCGAUCU;
- (x) CCUCUUU;

- (xi) CCUUGUU;
- (xii) UGUUCUU;
- (xiii) GGGGUUU;
- (xiv) UCCCCUU;
- (xv) GGACUCU;
- (xvi) UCGACUU; and
- (xvii) GCCACCU.

24.(New) The nucleic acid enzyme of claim 20, wherein the enzyme comprises three or more distinct double-stranded regions, and two or more distinct single-stranded regions, wherein the substrate binding portion is comprised by one of the single-stranded regions.

25.(New) The nucleic acid enzyme of claim 20, wherein the enzyme is derived from hepatitis delta virus.

26.(New) The nucleic acid enzyme of claim 20, wherein the substrate is composed of ribonucleotides.

27.(New) The nucleic acid enzyme of claim 20, wherein the substrate is composed of a mixture of ribonucleotides and deoxyribonucleotides.

28.(New) The nucleic acid enzyme of claim 20, wherein the enzyme is composed of ribonucleotides.

29.(New) The nucleic acid enzyme of claim 20, wherein the enzyme is composed of a mixture of ribonucleotides and deoxyribonucleotides.

30.(New) The nucleic acid enzyme of claim 20, wherein the nucleotide residue of said substrate directly 5' to the cleavage site does not form a base pair with said enzyme.

31.(New) A method for cleaving a nucleic acid substrate with a nucleic acid enzyme comprising mixing said substrate with the nucleic acid enzyme of claim 20.

32.(New) The method of claim 31, wherein the substrate is composed of ribonucleotides.

33.(New) The method of claim 31, wherein the substrate is composed of a mixture of ribonucleotides and deoxyribonucleotides.